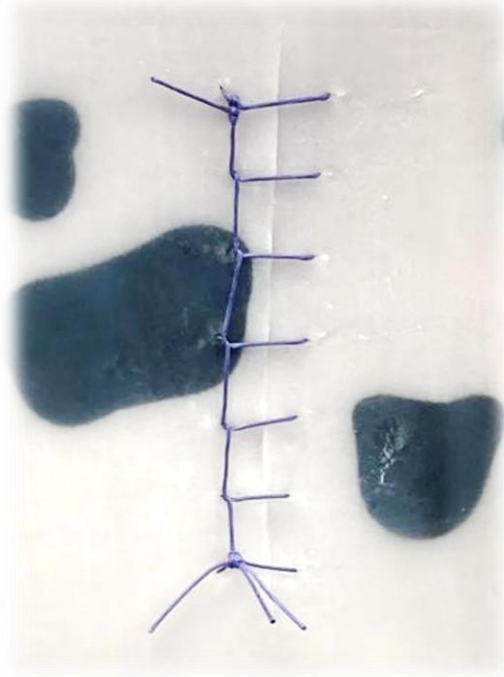


Ford Interlocking Suture



Disclaimer

A series of booklets (instructions for skills and flipped classroom materials) has been developed by the Clinical Skills Lab team (staff, recent graduates and students) from Bristol Veterinary School, University of Bristol, UK.

Please note:

- Each flipped classroom booklet includes ways to prepare for learning a skill in class; it is acknowledged that there are often other approaches. Before using the booklets, students should check with their university or college to determine whether the approaches illustrated are acceptable in their context or whether an alternative resources should be used.
- The booklets are made available in good faith and may be subject to changes.
- In using these booklets, you must adopt safe working procedures and take your own risk assessments (as and when appropriate), checked by your university, college etc. The University of Bristol will not be liable for any loss or damage resulting from failure to adhere to such practices.

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Equipment list:

Ford Interlocking Suture

Equipment for this station:

- Vertical bovine suture skin model
- Needle holders
- Cassette of 6 metric nylon
- Scissors
- Rat-tooth forceps (large)
- Large triangular cutting needle, use either:
half curved or fully curved



Considerations for this station:

- Refer to 'CSL_SP07 Removing Suture Material from a Cassette or Pack' to revise the technique for removing the nylon suture material from the reel.
- Needles must be reused (ask for new needles if blunt)
- Needles are sharp and can cause injury.
- Blunt or bent needles should be disposed of in a sharps bin.
- Sutures to be removed from model when finished and put in bin.

Anyone working in the Clinical Skills Lab must read the 'CSL_I01 Induction' and agree to abide by the 'CSL_I00 House Rules' & 'CSL_I02 Lab Area Rules'

Please inform a member of staff if equipment is damaged or about to run out.

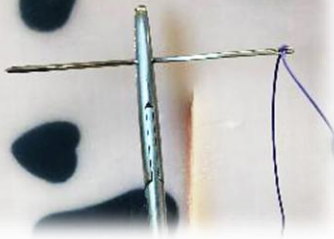


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Clinical Skills:

Ford Interlocking Suture

1



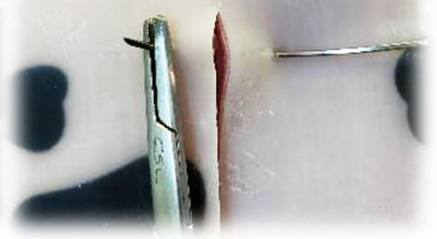
Grasp the needle with the needle holders approximately halfway along its length.

2



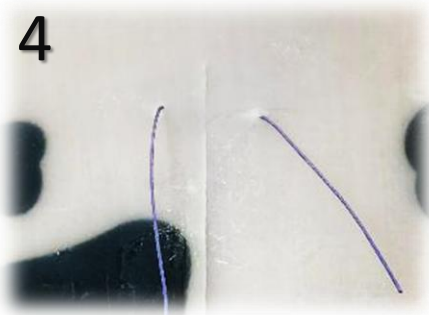
Start on the right side of the incision (for right handers, left side for left handers).
Lift the edge of the incision using the forceps. Insert the needle approximately 1cm from the edge of the incision.

3



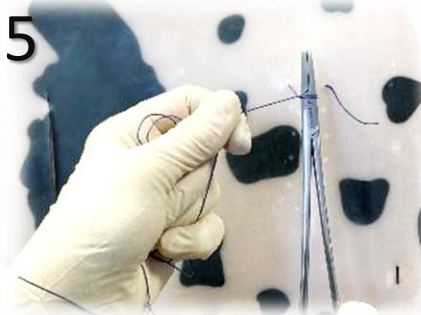
Release the needle holders, then re-grasp the needle as it exits the skin approximately 1cm from the edge of the incision.
If the skin is particularly tough, then pull the needle through each edge of the incision separately.

4



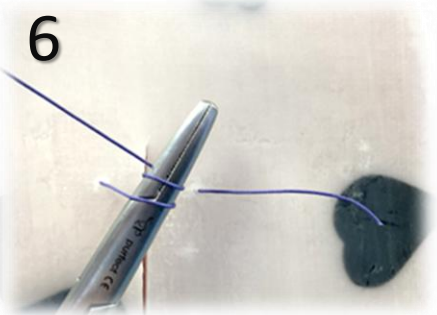
Pull the suture material through until approximately 5cm of the loose end remains.

5



Hold the needle and gather the suture material in your non-dominant hand.

6



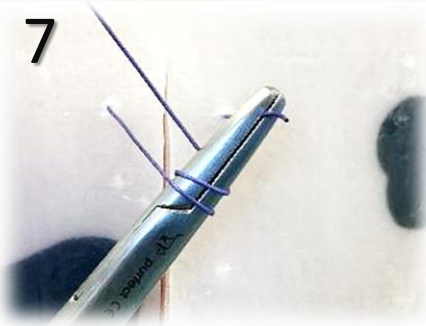
Place the needle holders over the incision and between the two ends of the suture material. Then wrap the suture material around the needle holders. When suturing bovine skin, it is typical to tie a surgeon's knot i.e. wrap the suture material around twice for the first throw.



Clinical Skills:

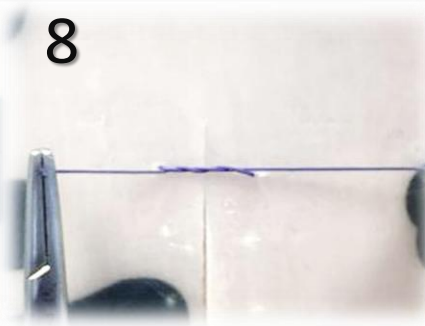
Ford Interlocking Suture

7



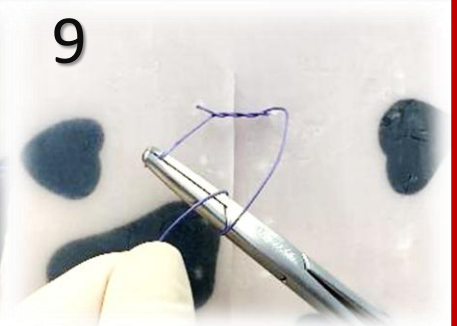
Open the needle holders and grasp the short end of suture material. Then pull the short end through the loops that are around the needle holders.

8



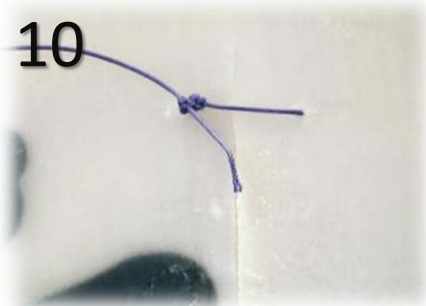
Tighten the throw by pulling evenly with both hands to keep an even tension.

9



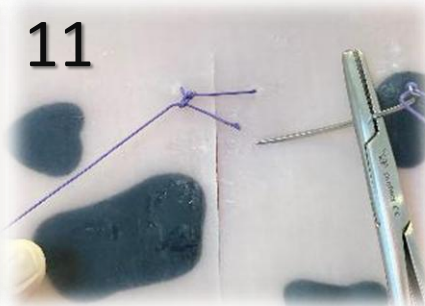
Place the needle holders between the ends of the suture material, i.e. over the knot, and wrap the long end of the suture material once around the needle holders. Grasp the short end and draw it back through the loop around the needle holders.

10



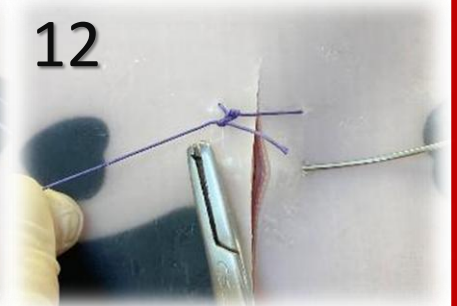
Tighten the single throw on top of the underlying double throw. Pull evenly and gently to prevent the underlying knot from loosening. Place another 2 or 3 single throws.

11



Place the second suture approximately 1.5cm ventral from the first. Try to enter and exit the tissue at the same distance from the incision. The sutures should always be at right angles to the incision.

12



With your non-dominant hand hold the suture material. Elevate it slightly and hold it dorsal to where you are placing the second suture. This will create a large loop from knot to needle. Re-grasp the needle where it exits the skin.

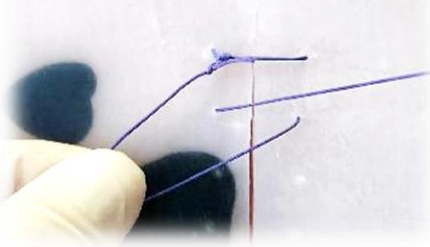


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Clinical Skills:

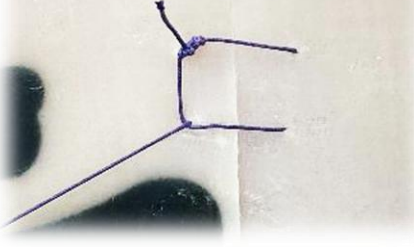
Ford Interlocking Suture

13



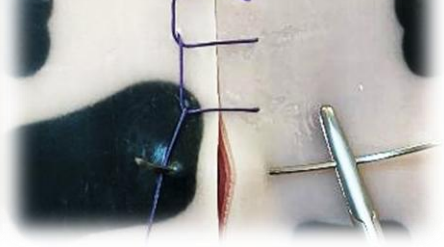
Pass the needle through the loop.

14



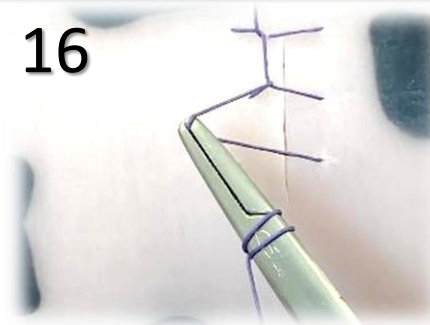
Pull tight to 'lock' the suture.

15



Continue the same pattern of suturing all the way down the incision.

16

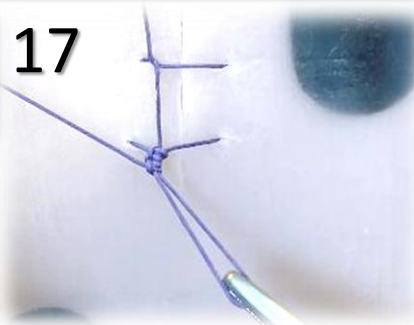


When tying the knot to secure the row of sutures, leave the loop from the last suture i.e. do not pull it all the way through the tissue.

Make 2 throws around the needle holders using the free end of the suture material. Then grasp the middle of the loop with the needle holders.

From this point, the loop acts as the 'short end' of the suture material.

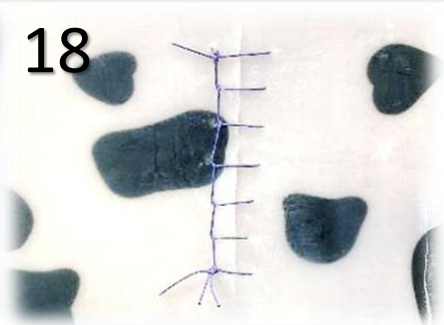
17



Place at least three further single throws to complete the knot.

Note: There are variations in ways to tie the final knot including passing the needle from left to right instead of right to left for the last part of the suture.

18



Cut the ends to about 1.5-2cm in length.

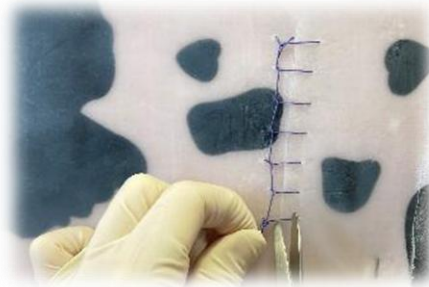
Note: If performing the suture pattern left-handed, the 'locks' and knots will be on the right side of the incision.



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Resetting the station: Ford Interlocking Suture

1. Use the scissors to cut the suture at one end.



2. Unthread the rest of the suture, rather cutting it in multiple places along the suture line.
3. Place the suture material in the bin.
4. Put the needle and instruments in the relevant containers.
5. Blunt or bent needles should be disposed of in a sharps bin.

Station ready for the next person:



Please inform a member of staff if equipment is damaged or about to run out.

I wish I'd known:

Ford Interlocking Suture

- If you run out of suture material before reaching the ventral end of the incision, tie off the Ford interlocking suture and place a simple interrupted or cruciate suture in the remaining gap.
- Make sure you have sharp needles in your surgery kit and throw out any blunt needles, so they don't continue to be re-used.
- Depending on the length of the surgery be aware that your local anaesthesia may be wearing off.
- Be aware of where you are standing and try to position yourself out the way of being kicked.
- Never use the serrated side of the needle holder jaws to tighten the suture line as this will damage and potentially weaken the suture material, which could then 'fail' before wound has healed. Use the smooth 'back' of the jaws instead.

